

Application No.: 10/551/795
Amendment Dated: December 7, 2010
Reply to Office Action of: August 9, 2010

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Remarks/Arguments:

Claims 1-8, 10 and 15-17 have been amended. No new matter is introduced herein. Claims 12-14 have been cancelled without prejudice or disclaimer. Claims 1-10 and 15-17 are pending.

Claim 1 has been amended to clarify that: 1) the home link setting method is at a start time of activating or a time of initializing a home gateway device for accommodating a mobile terminal in a home link, 2) the home gateway device is connected to the mobile terminal via a communication link, 3) a solicitation message requesting network information used for setting a home network accommodating the mobile terminal is transmitted to a plurality of connected communication links, where the plurality of connected communication links are already connected at the start time of activating or at the time of initializing the home gateway device, 4) an advertisement message is received from at least one of the plurality of connected communication links to which the solicitation message has been sent, 5) a communication link is selected to connect as the home link from among the plurality of connected communication links other than the at least one of the plurality of connected communication links from which the advertisement message has been received and 6) an internal setting is executed to conduct a home agent function with respect to the mobile terminal on the selected communication link. Claims 6 and 17 have been amended similarly to claim 1. No new matter is introduced herein. Basis for the amendment includes, for example, page 20, line 1-page 25, line 9 and Fig. 2 of the subject specification. Claims 2-5, 7, 8, 10, 15 and 16 have been amended to correspond with respective claims 1 and 6.

Claims 1-10 and 15-17 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Takeda et al. (U.S. 7,328,014) in view of Matta et al. (U.S. 2003/0069018). It is respectfully submitted, however, that these claims are patentable over the cited art for the reasons set forth below.

Claim 1, as amended, includes features neither disclosed nor suggested by the cited art, namely:

... transmitting, by the home gateway device, a solicitation message requesting network information used for setting a home network accommodating the mobile terminal to a plurality of connected communication links, the plurality of the connected communication links being already connected at the start time of activating or at the time of initializing the home gateway device ...

... receiving, by the home gateway device, an advertisement message including the network information from at least one of the plurality of the connected communication links to which the solicitation message has been sent ...

... selecting, by the home gateway device, a communication link to connect as the home link from among the plurality of the connected communication links other than the at least one of the plurality of the connected communication links from which the advertisement message has been received ...
(emphasis added)

Claims 6 and 17 include similar recitations.

Takeda et al. relate to a communication method and system allowing mobile nodes to acquire a home address in a visited network. (Abstract.) Fig. 9 of Takeda et al. relate to a home address creation through binding update processing sequence between mobile node 3, router 4c, gateway equipment 2b, authentication server 8 and home agent 1. (Col. 7, lines 65-67.) At steps 101-102, mobile mode 3 acquires a Care of Address (COA) in visited network 5b. (Col. 8, lines 1-9.) At steps 109 and 110, DHCP solicit and advertise messages are transmitted between gateway equipment 2b and home agent 1, in order to discover a DHCP server capable of distributing a prefix. (Col. 8, lines 29-47.) At steps 111 and 112, DHCP request and reply messages are transmitted between gateway equipment 2b and home agent 1, to request distribution of an IPv6 prefix. At step 113, gateway equipment 2b creates a new entry in an acceptable address list and sends an authentication reply containing prefix information to mobile node 3. (Col. 8, line 48-Col. 9, line 3.) At step 114,

mobile mode 3 creates a home address from the prefix information. (Col. 9, lines 9-12.)

As acknowledged by the Examiner on page 5 of the Office Action, Takeda et al. do not disclose: 1) responsive to activating or initializing the home gateway device, connecting the home gateway device with a plurality of communication links and 2) selecting, by the home gateway device, a home link from the plurality of connected communication links other than a communication link which has received the network information. Accordingly, Takeda et al. can not teach: 1) transmitting, by the home gateway device, a solicitation message requesting network information used for setting a home network accommodating the mobile terminal to a plurality of connected communication links, where the plurality of connected communication links are already connected at a start time of activating or at a time of initializing the home gateway device and 2) selecting, by the home gateway device, a communication link to connect as a home link from among the plurality of connected communication links other than at least one of the plurality of connected communication links from which an advertisement message has been received, as required by claim 1 (emphasis added). Takeda et al. are silent regarding these features.

Takeda et al. relate to a process of changing a home address (an IP address) of a terminal by a home agent in a visited network. The home agent changes the home address of the terminal to another address which can avoid collision on the home agent when the home agent decides that an accommodation of the mobile terminal is possible. In Takeda et al., DHCP solicitation and DHCP advertisement messages are sent/received only between gateway equipment 2b and home agent 1 (Fig. 9). Gateway equipment 2b executes a process to the terminal which requests connection and establishes a binding process to the terminal which requests connection (including binding home agent and CoA). However, Takeda et al. only request a connection from visited networks 5a, 5b, not from home network 6. Therefore, Takeda et al. requires generation of a CoA. In other words, Takeda et al. does not disclose or suggest connection to a home link. In contrast, Applicants' claim 1 relates to a home link setting method which selects a communication link to connect as the home link.

Applicants' claimed invention includes a start time of activating or a time of initializing a home gateway device. Accordingly, a mobile terminal can be accommodated (even if the mobile terminal can not send a connection request) to connect to the home gateway device. Thus, accommodation of the mobile terminal to the home link without a connection request is possible. These advantages are not disclosed or suggested by Takeda et al. Thus, for the reasons set forth above, Takeda et al. do not include all of the features and advantages of claim 1.

Matta et al. relate to a method for providing a triggering mechanism in an all-IP wireless communication system, where a plurality of communication paths are established between a mobile terminal and a correspondent node. (Abstract.) As shown in Fig. 3, wireless communication system 10 includes mobile terminal 14 connected through a plurality of wireless links 30, 32 to a plurality of access points 34, 36 of core network 16. Each access point 34, 36 is connected to a corresponding router 38, 40. (Paragraph [0028].) After the communication path between the mobile terminal and the correspondent node are established, all access points 34, 36 and routers 38, 40 within radio range of mobile terminal 14 are probed to obtain a quality of service (QoS) parameter associated with the respective communication path. Selection of a communication path is based on the QoS parameter statistics for the communication paths (i.e., from candidate access point/router AP/R pairs.) (Paragraphs [0015]-[0016] and [0032].) QoS parameters include packet delay, packet jitter, packet loss and bandwidth on an end-to-end path. (Paragraph [0017] and [0047].)

Matta et al., however, do not disclose or suggest transmitting a solicitation message requesting network information used for setting a home network accommodating the mobile terminal to plurality of connected communication links, where the plurality of connected communication links are already connected at the start time of activating or at the time of initializing the home gateway device, as required by claim 1 (emphasis added). Matta et al. are silent regarding this indicated feature.

In addition, Matta et al. do not disclose or suggest selecting a communication link to connect as the home link from among a plurality of connected communication

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links other than at least one of the plurality of connected communication links from which an advertisement message has been received, as required by claim 1 (emphasis added). Matta et al. are silent regarding this indicated feature. In Applicants' claimed invention, a communication link is selected as the home link from among communication links from which an advertisement message has not been received. In contrast, paragraphs [0049-0050] of Matta et al. relate to a handoff process to the AP/R pair having the highest QoS quantifier. In Matta et al., a preference (priority) order of the communication path is determined based on the QoS quantifier, and network information is sent or received in all of the communication links. Thus, for the reasons set forth above Matta et al. do not make up for the deficiencies of Takeda et al. with respect to claim 1. Accordingly, allowance of claim 1 is respectfully requested.

Although not identical to claim 1, claims 6 and 17 include features similar to claim 1, which are neither disclosed nor suggested by the cited art. Accordingly, claims 6 and 17 are also patentable over the cited art for at least the same reasons as claim 1.

Claims 2-5, 7-10, 15 and 16 include all of the features of respective claims 1 and 6 from which they depend. Accordingly, these claims are also patentable over the cited art.

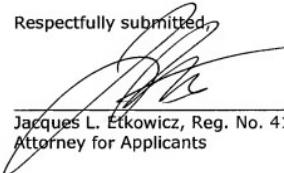
Claims 12 and 14 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Takeda et al. in view of Goodwin (U.S. 2002/0124107). Claim 13 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Takeda et al. in view of Goodwin and further in view of Leung et al. (U.S. 6,466,964). Claims 12-14, however, have been cancelled without prejudice or disclaimer. Accordingly, the rejection of these claims is moot.

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In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,


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